WHAT IS CLAIMED IS:

1. A method of manufacturing a semiconductor device, comprising the steps of:

forming a gate insulating film and a gate electrode on a main surface of a silicon semiconductor substrate;

selectively depositing on only the exposed region of the main surface of the semiconductor substrate a conductive film containing germanium or a conductive film made of silicon carbide;

depositing a silicon film on said conductive film of said region; and

forming source/drain regions by implanting and diffusing an impurity into the main surface of said semiconductor substrate through said conductive film and said silicon film deposited on the conductive film with the gate electrode used as a mask.

2. The method of manufacturing a semiconductor device according to claim 1, wherein said silicon film deposited on said conductive film is a polycrystalline film or a monocrystalline film having a dislocation density of at least $10^8 cm^{-2}$.

3. The method of manufacturing a semiconductor device according to claim 1, further comprising the step of forming extension regions in predetermined regions for forming said source/drain regions, said step being performed after formation of said gate

electrode and before deposition of said conductive film containing germanium or conductive film made of silicon carbide.

4. The method of manufacturing a semiconductor device according to claim 1, further comprising the step of lowering the resistance of the surface of said silicon film deposited on the conductive film.

5. The method of manufacturing a semiconductor device according to claim 4, wherein the step of lowering the resistance of the surface of said silicon film deposited on the conductive film includes a step of depositing a metal film on the surface of the deposited silicon film.

6. The method of manufacturing a semiconductor device according to claim 1, further comprising the step of forming a side wall insulating film on the side surface of said gate electrode.

7. The method of manufacturing a semiconductor device according to claim 1, wherein said silicon carbide film has a film thickness of 0.1 to 10 nm.

8. The method of manufacturing a semiconductor device according to claim 1, wherein said conductive film containing germanium contains at least 20 atomic % of germanium.

9. The method of manufacturing a semiconductor device according to claim 1, wherein said conductive film containing germanium contains at least

$1 \times 10^{16}cm^{-2}$ of germanium in terms of areal density.

10. The method of manufacturing a semiconductor device according to claim 1, wherein said conductive film made of silicon carbide contains at least $1 \times 10^{16}cm^{-2}$ of silicon carbide in terms of areal density.

11. A method of manufacturing a semiconductor device, comprising the steps of:

forming a gate insulating film and a gate electrode on a main surface of a silicon semiconductor substrate;

selectively carbonizing only the exposed region of the main surface of the semiconductor substrate to selectively form a silicon carbide film on the exposed region, after formation of the gate electrode;

depositing a silicon film on said silicon carbide film of said region; and

forming source/drain regions by implanting and diffusing an impurity into the main surface of said semiconductor substrate through said silicon carbide film and said silicon film deposited on the silicon carbide film with the gate electrode used as a mask.

12. The method of manufacturing a semiconductor device according to claim 11, further comprising the step of forming extension regions in predetermined regions for forming said source/drain regions, said step being performed after formation of said silicon carbide film and before deposition of said silicon film

on the silicon carbide film.

13. The method of manufacturing a semiconductor device according to claim 11, further comprising the step of lowering the resistance of the surface of said deposited silicon film.

14. The method of manufacturing a semiconductor device according to claim 13, wherein the step of lowering the resistance of the surface of said deposited silicon film includes a step of depositing a metal film on the surface of the deposited silicon film.

15. The method of manufacturing a semiconductor device according to claim 11, further comprising the step of forming a side wall insulating film on the side surface of said gate electrode.

16. The method of manufacturing a semiconductor device according to claim 11, wherein said silicon carbide film has a film thickness of 0.1 to 10 nm.

17. A semiconductor device, comprising:

a silicon semiconductor substrate;

a gate insulating film and a gate electrode formed on a main surface of said semiconductor substrate;

a conductive film containing germanium or a conductive film made of silicon carbide, said conductive film being formed on a silicon-exposed region on the main surface of the semiconductor substrate;

a silicon film formed on said conductive film on said region; and

source/drain regions formed in the silicon semiconductor substrate region below said silicon film and said conductive film;

wherein said silicon film is a polycrystalline film or a monocrystalline film having a dislocation density of at least $10^8 cm^{-2}$.

18. The semiconductor device according to claim 17, wherein said silicon film deposited on said conductive film is a polycrystalline film or a monocrystalline film having a dislocation density of at least $10^8 cm^{-2}$.

19. The semiconductor device according to claim 17, wherein said conductive film containing germanium contains at least 20 atomic % of germanium.

20. The semiconductor device according to claim 17, wherein said conductive film containing germanium contains at least $1 \times 10^{16} cm^{-2}$ of germanium in terms of areal density.

21. The semiconductor device according to claim 17, wherein said silicon carbide film has a film thickness of 0.1 to 10 nm.